IN THE CLAIMS:

Please amend the claims as follows:

1. (Currently Amended) A computer-implemented method for ~~formatting~~ storage of data sets described using multiple different coordinate systems into a single file format, the method comprising the steps of:

acquiring a first coordinate system data set;

formatting the first coordinate system data set into non-Cartesian representation (NC) format; and

storing the ~~resulting formatted~~ data set ~~in~~ formatted into NCR format in the single file format.

2. (Original) The method of claim 1, wherein the acquiring step comprises the step of acquiring a second coordinate system data set, and wherein the formatting step formats the second coordinate system data set into NCR format.

3. (Original) The method of claim 1, wherein the first coordinate system data set is described using a non-Cartesian coordinate system.

4. (Original) The method of claim 2, wherein the second coordinate system data set is described using a Cartesian coordinate system.

5. (Currently Amended) The method of claim 1, wherein the ~~NCR~~ single file format comprises:

a file header, and

a header of ~~the~~ a reference point relative to a global coordinate system.

6. (Currently Amended) The method of claim 5, wherein the ~~NCR~~ single file format further comprises:

a transformation field, and

a type of coordinate system filed.

7. (Currently Amended) Computer apparatus for ~~formatting~~ storage of data sets described using multiple different coordinate systems into a single file format, the computer apparatus comprising:

a central processing unit (CPU); and

coupled to the CPU, a memory unit comprising:

a data acquisition module for acquiring a first coordinate system data set;

a formatting module in communication with the data acquisition module and configured to format the first coordinate system data set into NCR format; and

a storage module in communication with the formatting module and configured to store the NCR formatted data in the single file format.

8. (Original) The computer apparatus of claim 7, wherein the data acquisition module is adapted for acquiring a second coordinate system data set, and wherein the formatting module is adapted for formatting the second coordinate system data set into NCR format.

9. (Currently Amended) The computer apparatus of claim 7, wherein the single file format includes a ~~formatting module is adapted to format the acquired data into a file structure, the~~ file structure comprising:

a transformation field, and

a type of ~~the~~ coordinate system field.

10. (Original) The computer apparatus of claim 9, wherein the transformation field is a direction cosines field and the direction cosines field comprises nine direction cosines.

11. (Original) The computer apparatus of claim 9, wherein the transformation field is a direction cosines field and the direction cosines field comprises six direction cosines.

12. (Currently Amended) The computer apparatus of claim 7, wherein the single file format includes a ~~formatting module formats the acquired data into a file structure, the~~ file structure comprising:

a file header, and

a header of ~~the~~ a reference point relative to a global coordinate system.

13. (Original) The computer apparatus of claim 7, wherein the first coordinate system data set is described using a Cartesian coordinate system.

14. (Original) The computer apparatus of claim 8, wherein the second coordinate system data set is described using a Cartesian coordinate system.

15. (Currently Amended) A computer-readable medium containing a computer program for ~~formatting~~ storage of data sets described using multiple different coordinate systems into a single file format, the computer program comprising:

a data acquisition module for acquiring a first coordinate system data set;

a formatting module in communication with the data acquisition module and configured to format the first coordinate system data set into NCR format; and

a storage module in communication with the formatting module and configured to store the ~~formatted~~ data ~~sets in~~ formatted into NCR format in the single file format.

16. (Original) The computer readable medium of claim 15, wherein the data acquisition module is adapted to acquire a second coordinate system data set, and

wherein the formatting module is adapted to format the second coordinate system data set in NCR format.

17. (Currently Amended) The computer readable medium of claim 15, wherein the single file format includes a ~~formatting module formats the acquired data into a file structure, the~~ file structure comprising:

a file header, and

a header of ~~the~~ a reference point relative to a global coordinate system.

18. (Currently Amended) The computer readable medium of claim 15, wherein the single file format includes a ~~formatting module formats the acquired data into a file structure, the~~ file structure comprising:

a transformation field, and

a type of ~~the~~ coordinate system field.

19. (Original) The computer readable medium of claim 15, wherein the first coordinate system data set is described using a non-Cartesian coordinate system.

20. (Original) The computer readable medium of claim 16, wherein the second coordinate system data set is described using a Cartesian coordinate system.